Claims

- 1. (currently amended) A nanocomposite material comprising
 - a) a polyolefinsynthetic polymer,
- b) a natural or synthetic phyllosilicate or a mixture of such phyllosilicates in nanoparticles, which are modified by an ammonium or phosphonium compound,
 - c) a phenolic antioxidant and/or a processing stabilizer, and
- d) a mono or polyfunctional compound selected from bisphenol A diglycidyl ether[[,]]bisphenol F diglycidyl ether, diglycidyl 1,2-cyclohexanedicarboxylate and phenol novolak epoxy resin,

wherein the processing stabilizer is tris(2,4-di-tert-butylphenyl) phosphite and the phenolic antioxidant is of formula Ic

$$\begin{bmatrix} H_3C \\ H_3C \\ HO \\ CH_2 \\ CH_2 \\ CH_3 \\$$

wherein component (c) is tris(2,4-di-tert-butylphenyl) phosphite, bis(2,4-di-tert-butyl-6-methylphenyl) ethyl phosphite, bis(2,4-di-tert-butylphenyl) pentaerythritol diphosphite, tetrakis(2,4-di-tert-butylphenyl) 4,4'-biphenylenediphosphonite, 3-(3,4-dimethylphenyl)-5,7-di-tert-butylbenzofuran-2-one, 3-(2,3-dimethylphenyl)-5,7-di-tert-butylbenzofuran-2-one, and/or a compound of the formula-la, lb, lc, ld or lg

$$H_{3}C$$
 CH_{3}
 $H_{3}C$
 CH_{2}
 CH_{2}
 CH_{2}
 CH_{3}
 C

$$\begin{bmatrix} H_3C \\ H_3C \\ \hline HO \\ \hline H_3C \\ \hline CH_2 \\ \hline CH_2 \\ \hline CH_2 \\ \hline CH_3 \\ \hline C \\ CH_4 \\ \hline C \\ CH_5 \\ CH_5 \\ \hline C \\ CH_5 \\ CH_5 \\ \hline C \\ CH_5 \\ \hline C \\ CH_5 \\ \hline C \\ CH_5 \\ C$$

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$$R_3$$
 R_3 R_3 R_3 R_4 R_5 R_5

- 2. (canceled)
- 3. (canceled)
- **4. (original)** A nanocomposite material according to claim **1**, wherein component (b) is a montmorillonite, bentonite, beidelite, mica, hectorite, saponite, nontronite, sauconite, vermiculite, ledikite, magadite, kenyaite, stevensite, volkonskoite or a mixture thereof in nanoparticles.
- 5-11. (canceled)
- **12.** (original) A nanocomposite material according to claim 1, wherein component (b) is present in an amount of from 0.01 to 30 %, based on the weight of component (a).
- **13.** (original) A nanocomposite material according to claim **1**, wherein component (c) is present in an amount of from 0.01 to 5 %, based on the weight of component (a).
- **14** (original) A nanocomposite material according to claim 1, wherein component (d) is present in an amount of from 0.01 to 5 %, based on the weight of component (a).

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- **15.** (original) A nanocomposite material according to claim **1**, comprising in addition, besides components (a), (b), (c) and (d), further additives.
- **16.** (previously presented) A nanocomposite material according to claim **15**, comprising as further additives modification agents for nanocomposites, compatibilizers, light-stabilizers, dispersing or solvating agents, pigments, dyes, plasticizers or toughening agents.
- **17.** (previously presented) A nanocomposite material according to claim **15**, comprising as further additives modification agents for nanocomposites, compatibilizers or metal passivators.
- **18. (original)** A nanocomposite material according to claim **1** in the form of a masterbatch comprising component (b) in an amount of from 0.03 to 90 %, based on the weight of component (a), component (c) in an amount of from 0.03 to 15 %, based on the weight of component (a), and component (d) in amount of from 0.03 to 15 %, based on the weight of component (a).
- **19.** (original) A process for stabilizing a synthetic polymer against oxidative, thermal or light-induced degradation, which comprises incorporating in or applying to said material at least one each of components (b), (c) and (d) according to claim **1**.
- 20. (canceled)